

## 14. December 2015 Health and Disease Update

Thursday, January 14, 2016  
12:30 PM

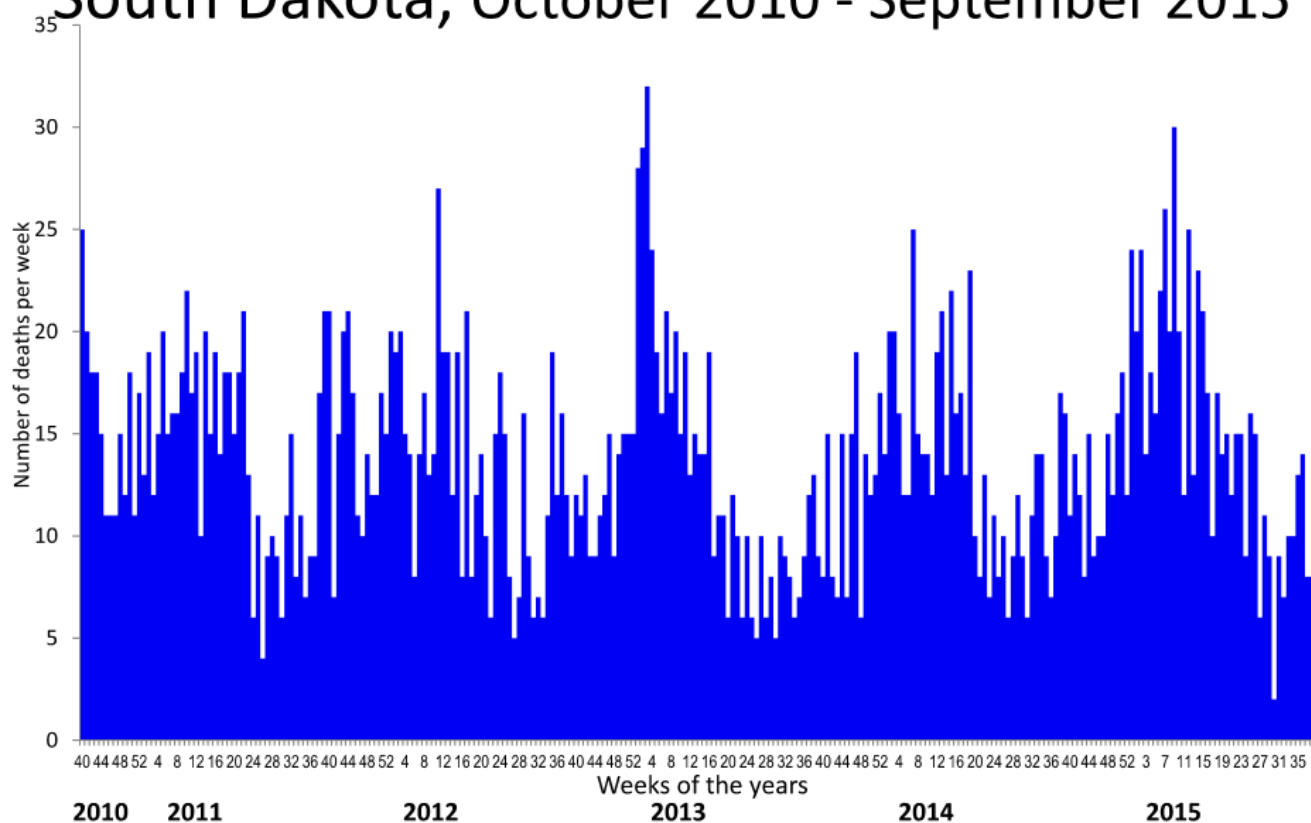


### **South Dakota Health and Disease Summary December 2015**

**South Dakota Department of Health**

**Photo:** Winter at Lake Hiddenwood, <sup>1</sup>  
Walworth County, South Dakota

# Pneumonia and Influenza Deaths by Week, South Dakota, October 2010 - September 2015



**SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data****South Dakota infectious disease summary 2015**

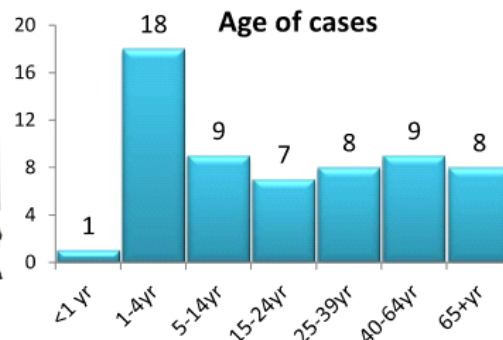
| <b>Disease/Agent</b>                                   | <b>Cases<br/>year-<br/>to-date</b> | <b>Rate</b> (cases<br>per 100,000<br>population) | <b>5-yr median<br/>cases<br/>(2009-2014)</b> | <b>Percent<br/>change</b> |
|--|------------------------------------|--|--|---------------------------|
| <b>Campylobacter</b>                                   | <b>346</b>                         | 40.6   | 296  | +17%                      |
| <b>Chlamydia</b>                                       | <b>3,873</b>                       | 454.0  | 3,924  | -1%                       |
| <b>Cryptosporidiosis</b>                               | <b>249</b>                         | 29.2   | 145  | +72%                      |
| <b><i>E. coli</i>, shiga toxin-producing</b>           | <b>61</b>                          | 7.1  | 41   | +49%                      |
| <b>Giardiasis</b>                                      | <b>126</b>                         | 14.8   | 111  | +14%                      |
| <b>Gonorrhea</b>                                       | <b>1,047</b>                       | 122.7  | 707  | +48%                      |
| <b>Hepatitis C</b>                                     | <b>567</b>                         | 66.5   | 386  | +47%                      |
| <b>HIV, including Stage III (AIDS)</b>                 | <b>24</b>                          | 2.8  | 31   | -23%                      |
| <b>Measles</b>   | <b>2</b>                           | 0.2  | 0  | na                        |
| <b>MRSA, invasive</b>                                  | <b>159</b>                         | 18.6   | 94   | +69%                      |
| <b>Pertussis</b>                                       | <b>13</b>                          | 1.5  | 67   | -81%                      |
| <b>Rabies, animal</b>                                  | <b>29</b>                          | -  | 32   | -9%                       |
| <b>Salmonella</b>                                      | <b>229</b>                         | 26.8   | 170  | +35%                      |
| <b>Shigella</b>  | <b>285</b>                         | 33.4   | 11   | >1,000%                   |
| <b>Syphilis, early</b> <small>(1Jan_30Nov2015)</small> | <b>44</b>                          | 5.2  | 18   | +144%                     |
| <b>Tuberculosis</b>                                    | <b>17</b>                          | 2.0  | 15   | +13%                      |
| <b>Tularemia</b>                                       | <b>25</b>                          | 2.9  | 7  | +257%                     |
| <b>West Nile</b>                                       | <b>40</b>                          | 4.7  | 57   | -30%                      |

## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

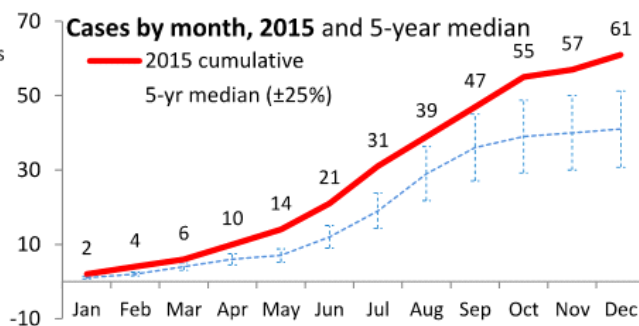
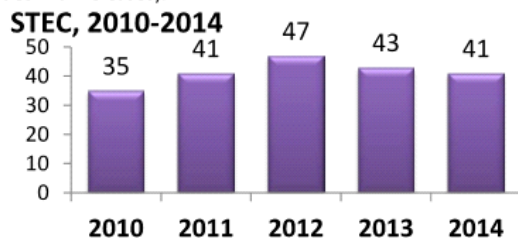
# Shiga toxin-producing *E. coli* (STEC)

Infections often include severe stomach cramps, diarrhea (often bloody), and vomiting, some may develop severe illness and hemolytic uremic syndrome (HUS).

| Regions             | Cases     | Rate**     |
|---------------------|-----------|------------|
| Sioux Falls MSA     | 26        | 10.5       |
| Rapid City MSA      | 3         | 2.2        |
| Northeast           | 13        | 7.6        |
| Southeast           | 12        | 10.7       |
| Central             | 6         | 6.4        |
| West                | 1         | 1.1        |
| <b>South Dakota</b> | <b>61</b> | <b>7.1</b> |



\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area  
**Counties with cases:** Beadle\*, Brookings\*, Brown\*, Brule\*, Buffalo\*, Charles Mix\*, Clay\*, Davison\*, Faulk\*, Hanson\*, Hughes\*, Hutchinson\*, Kingsbury\*, Lake\*, Lawrence\*, Lincoln 11, Marshall\*, McCook\*, Meade\*, Minnehaha 14, Moody\*, Pennington\*, Roberts\*, Spink\*, Tripp\*, Union\*, Yankton\*  
 (\*counties with ≤5 cases).



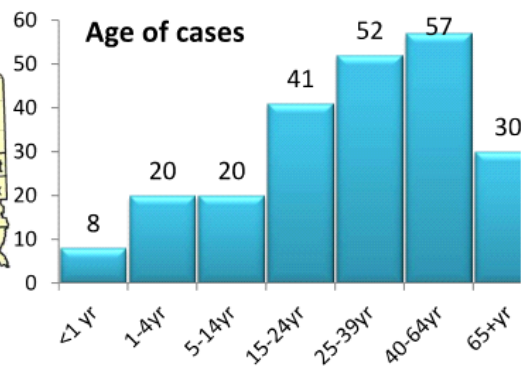


## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# Salmonella

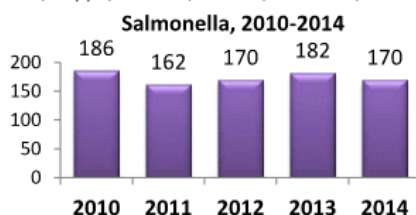
Most persons develop diarrhea, fever, and abdominal cramps 12 to 72 hours after infection.  
The illness usually lasts 4 to 7 days, and most persons recover without treatment.

| Regions             | Cases      | Rate**      |
|---------------------|------------|-------------|
| Sioux Falls MSA     | 68         | 27.4        |
| Rapid City MSA      | 26         | 19.2        |
| Northeast           | 47         | 27.4        |
| Southeast           | 42         | 37.3        |
| Central             | 30         | 32.0        |
| West                | 16         | 17.4        |
| <b>South Dakota</b> | <b>229</b> | <b>26.8</b> |



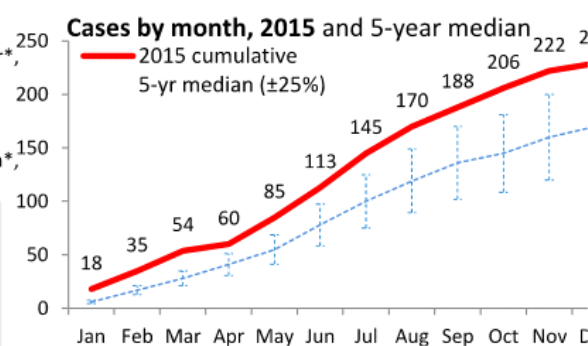
\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area.

**Counties with cases:** Aurora\*, Beadle\*, Bennett\*, Bon Homme\*, Brookings 12, Brown 12, Brule\*, Butte\*, Charles Mix\*, Clark\*, Clay 10, Codington\*, Corson\*, Custer\*, Davison 9, Day\*, Deuel\*, Dewey\*, Douglas\*, Edmunds\*, Gregory\*, Hamlin\*, Hand\*, Hanson\*, Hughes\*, Hutchinson\*, Jackson\*, Jerauld\*, Kingsbury\*, Lake\*, Lawrence\*, Lincoln 17, Lyman\*, Marshall\*, McCook\*, McPherson\*, Meade 8, Mellette\*, Minnehaha 48, Moody\*, Oglala Lakota\*, Pennington 18, Perkins\*, Roberts\*, Sanborn\*, Todd\*, Tripp\*, Turner\*, Union\*, Yankton\*, Ziebach\* (\*counties with ≤5 cases).



### Salmonella serotype

S. Braenderup 6  
S. Enteritidis 64  
S. Heidelberg 7  
S. Newport 16  
S. Typhimurium 51  
Other serotypes 75



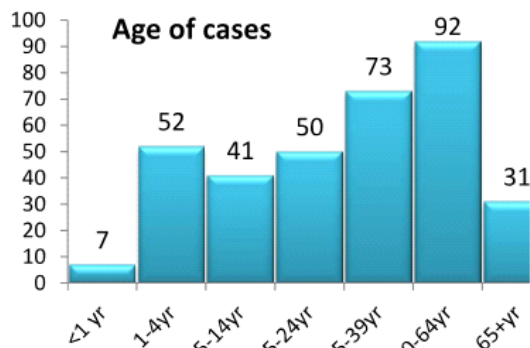
Disease fact sheets: <http://doh.sd.gov/diseases/infectious/diseasesa>

## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# Campylobacteriosis

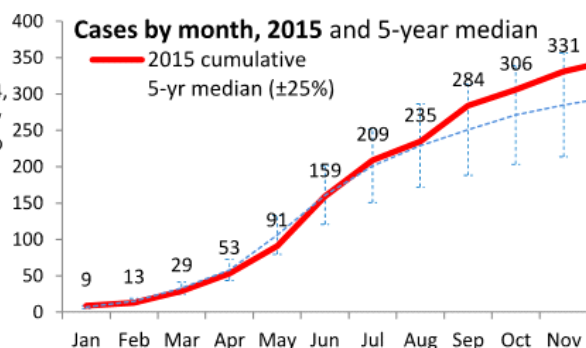
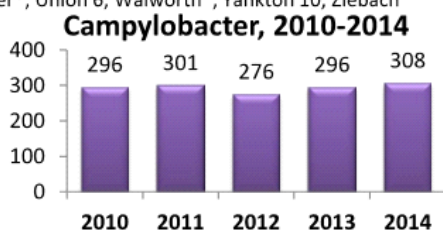
Most people have diarrhea, cramping, abdominal pain, and fever within 2 to 5 days after exposure to *Campylobacter*.

| Regions             | Cases      | Rate**      |
|---------------------|------------|-------------|
| Sioux Falls MSA     | 81         | 32.6        |
| Rapid City MSA      | 16         | 11.8        |
| Northeast           | 71         | 41.4        |
| Southeast           | 102        | 90.6        |
| Central             | 56         | 59.8        |
| West                | 20         | 21.7        |
| <b>South Dakota</b> | <b>346</b> | <b>40.6</b> |



\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Aurora\*, Beadle 9, Bennett\*, Bon Homme\*, Brookings 11, Brown 6, Brule\*, Butte\*, Campbell\*, Charles Mix 9, Clark\*, Clay 20, Codington 9, Custer\*, Davison 20, Day\*, Deuel\*, Dewey 6, Douglas 6, Edmunds\*, Fall River\*, Faulk\*, Grant\*, Gregory\*, Haakon\*, Hamlin\*, Hand\*, Hanson 7, Harding\*, Hughes\*, Hutchinson 11, Jackson\*, Jerauld\*, Jones\*, Kingsbury\*, Lake 7, Lawrence\*, Lincoln 24, Lyman\*, Marshall\*, McCook\*, McPherson\*, Meade\*, Miner\*, Minnehaha 51, Moody 9, Oglala Lakota\*, Pennington 11, Potter\*, Roberts 6, Sanborn\*, Spink 8, Todd\*, Tripp 7, Turner\*, Union 6, Walworth\*, Yankton 10, Ziebach\* (\*counties with ≤5 cases).

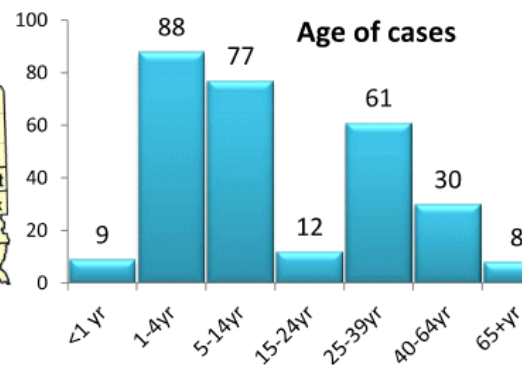


## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# Shigellosis

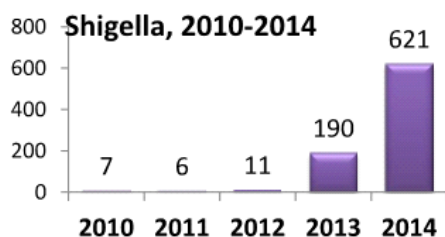
Symptoms: diarrhea, fever, and stomach cramps starting a day or two after they are exposed to the bacteria. The diarrhea is often bloody.

| Regions             | Cases      | Rate**      |
|---------------------|------------|-------------|
| Sioux Falls MSA     | 203        | 81.7        |
| Rapid City MSA      | 5          | 3.7         |
| Northeast           | 37         | 21.6        |
| Southeast           | 8          | 7.1         |
| Central             | 25         | 26.7        |
| West                | 7          | 7.6         |
| <b>South Dakota</b> | <b>285</b> | <b>33.4</b> |

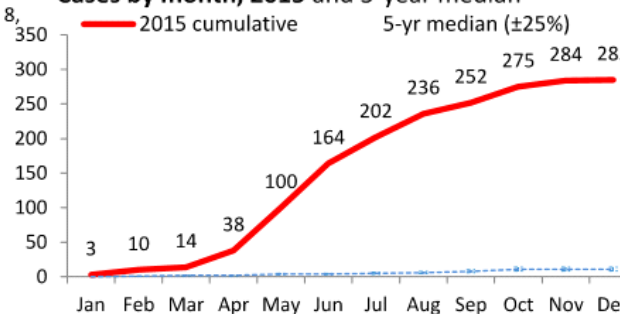


\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Beadle 21, BonHomme\*, Brookings\*, Brown\*, Brule\*, CharlesMix\*, Codington\*, Corson\*, Davison\*, Dewey 6, Hughes\*, Jerauld\*, Lawrence\*, Lincoln 23, Lyman\*, McCook\*, Minnehaha 177, Pennington\*, Roberts 8, Sanborn\*, Todd 6, Union\*, Walworth\*, Yankton\* (\*counties with ≤5 cases).



### Cases by month, 2015 and 5-year median

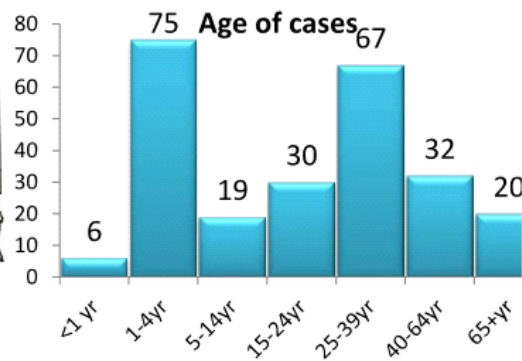


## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# Cryptosporidiosis

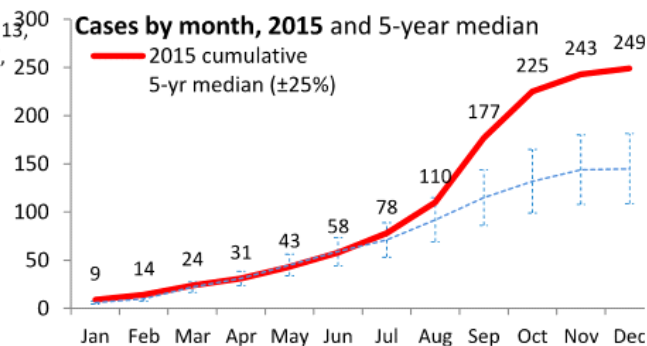
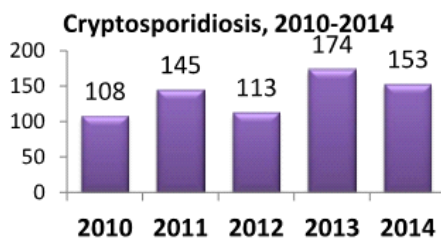
Cryptosporidiosis is a diarrheal disease caused by microscopic parasites that can live in the intestine of humans and animals and is passed in the stool of an infected person or animal.

| Regions             | Cases      | Rate**      |
|---------------------|------------|-------------|
| Sioux Falls MSA     | 108        | 43.5        |
| Rapid City MSA      | 5          | 3.7         |
| Northeast           | 47         | 27.4        |
| Southeast           | 70         | 62.2        |
| Central             | 12         | 12.8        |
| West                | 7          | 7.6         |
| <b>South Dakota</b> | <b>249</b> | <b>29.2</b> |



\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Aurora\*, Beadle\*, Bennett\*, BonHomme 6, Brookings 13, Brown 11, Butte\*, Charles Mix\*, Clark\*, Clay\*, Codington\*, Custer\*, Davison 7, Day\*, Deuel\*, Edmunds\*, FallRiver\*, Faulk\*, Grant\*, Hamlin\*, Hanson\*, Hutchinson 11, Kingsbury\*, Lake\*, Lincoln 28, McCook\*, Meade\*, Miner\*, Minnehaha 72, Moody\*, Pennington\*, Potter\*, Roberts\*, Sanborn\*, Stanley\*, Todd\*, Turner 6, Union\*, Yankton 35 (\*counties with ≤5 cases).



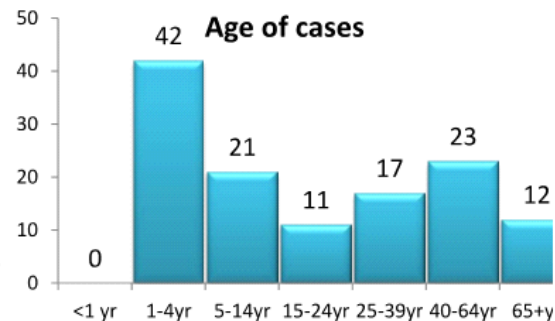


## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# Giardiasis

Symptoms include: diarrhea, gas or flatulence, greasy stool that can float, stomach or abdominal cramps, upset stomach or nausea, dehydration.

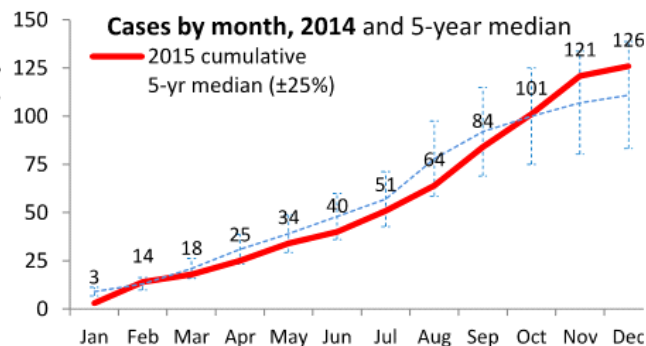
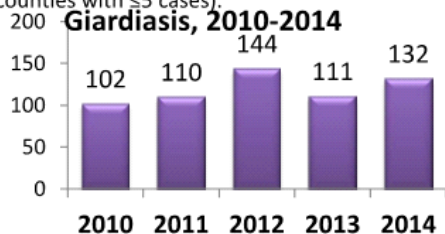
| Regions             | Cases      | Rate**      |
|---------------------|------------|-------------|
| Sioux Falls MSA     | 55         | 22.1        |
| Rapid City MSA      | 17         | 12.6        |
| Northeast           | 18         | 10.5        |
| Southeast           | 15         | 13.3        |
| Central             | 16         | 17.1        |
| West                | 5          | 5.4         |
| <b>South Dakota</b> | <b>126</b> | <b>14.8</b> |



\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Beadle 6, Brookings\*, Brown\*, Brule 8, Charles Mix\*, Clay\*, Codington\*, Custer\*, Davison\*, Day\*, Dewey\*, Faulk\*, Gregory\*, Hamlin\*, Hanson\*, Hughes\*, Hutchinson\*, Lake\*, Lawrence\*, Lincoln 12, McCook\*, Meade\*, Minnehaha 40, Moody\*, Oglala Lakota\*, Pennington 14, Roberts\*, Sanborn\*, Spink\*, Turner\*, Yankton\*

(\*counties with ≤5 cases).



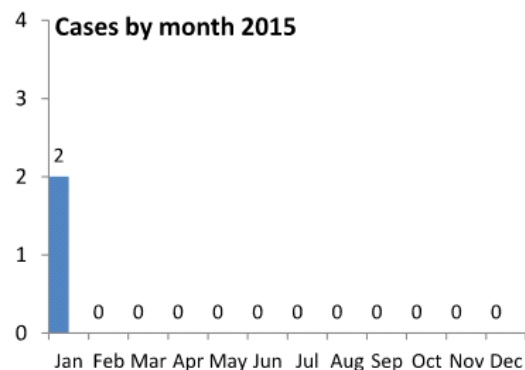
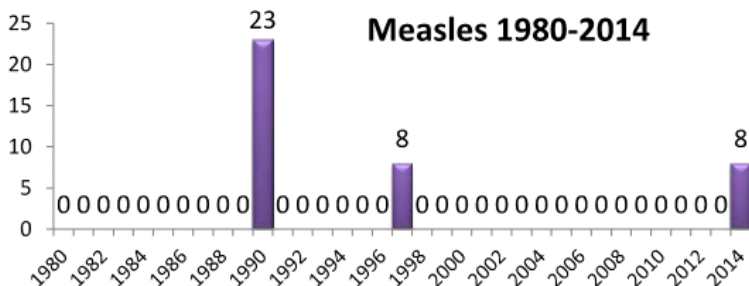
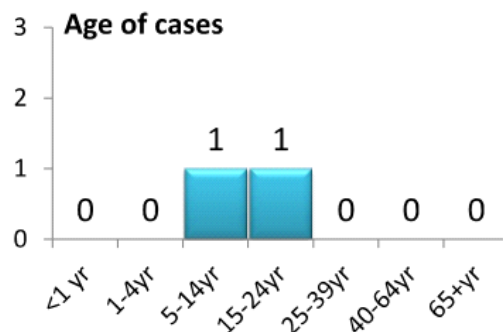
## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# Measles

Acute illness characterized by a prodrome of fever and malaise, cough, coryza and conjunctivitis, followed by a maculopapular rash. Rash usually appears 14 days after exposure.

| Regions             | Cases    | Rate**     |
|---------------------|----------|------------|
| Sioux Falls MSA     | 1        | 0.4        |
| Rapid City MSA      | 0        | 0.0        |
| Northeast           | 0        | 0.0        |
| Southeast           | 1        | 0.9        |
| Central             | 0        | 0.0        |
| West                | 0        | 0.0        |
| <b>South Dakota</b> | <b>2</b> | <b>0.2</b> |

\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area  
**Counties with cases:** (Counties not shown if <10 cases statewide).

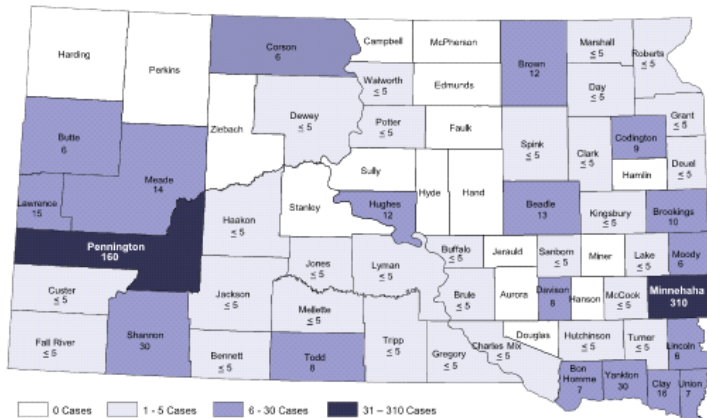


## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# HIV

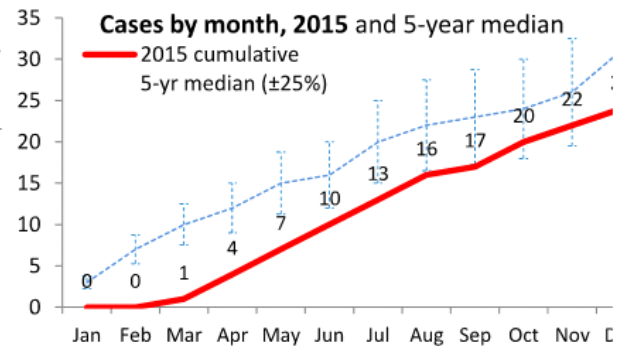
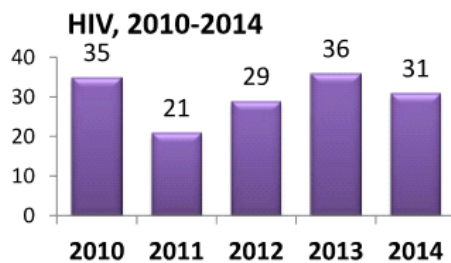
Current medications dramatically improve the health of people with HIV and slow progression to Stage III (AIDS). Treatments need to be taken for the rest of a person's life.

South Dakota Residents Reported Infected with HIV/AIDS:  
Cumulative Cases by County, 1985 - 2014



| Regions      | Cases     | Rate*      |
|--------------|-----------|------------|
| East River   | 17        | 2.8        |
| West River   | 7         | 2.7        |
| <b>Total</b> | <b>24</b> | <b>2.8</b> |

\*Rate: cases per 100,000 population.

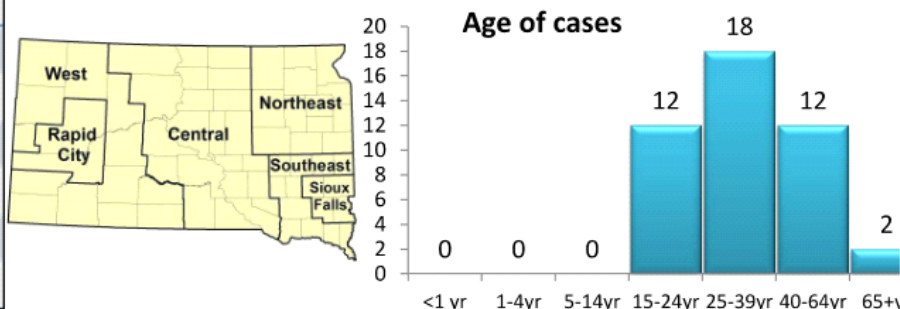


## SOUTH DAKOTA: 1 January – 30 November 2015: Provisional Data

### Syphilis (primary, secondary and early latent)

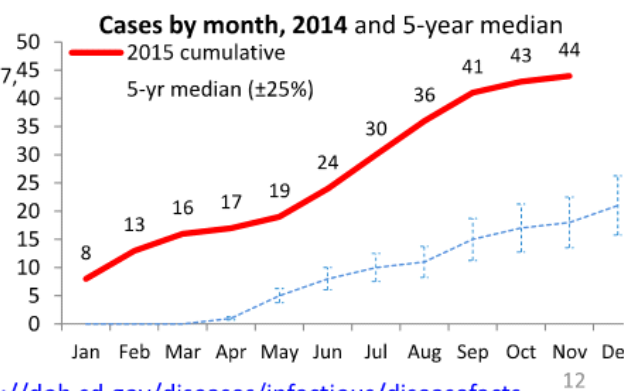
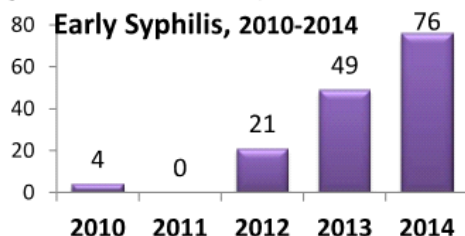
Syphilis is curable in early stages. Signs and symptoms of syphilis include a firm, round, and painless sore on genitals, anus, or mouth; or a rash on the body, including on palms of hands or soles of feet. Later stages include brain damage, heart disease, blindness and death.

| Regions             | Cases     | Rate**     |
|---------------------|-----------|------------|
| Sioux Falls MSA     | 18        | 7.2        |
| Rapid City MSA      | 3         | 2.2        |
| Northeast           | 6         | 3.5        |
| Southeast           | 2         | 1.8        |
| Central             | 14        | 15.0       |
| West                | 1         | 1.1        |
| <b>South Dakota</b> | <b>44</b> | <b>5.2</b> |



\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Brown\*, Brule\*, Clay\*, Codington\*, Corson\*, Dewey\*, Grant\*, Hughes\*, Lincoln\*, Meade\*, Minnehaha\*, Oglala\*, Lakota\*, Pennington\*, Roberts\*, Union\* (\*counties with ≤5 cases).

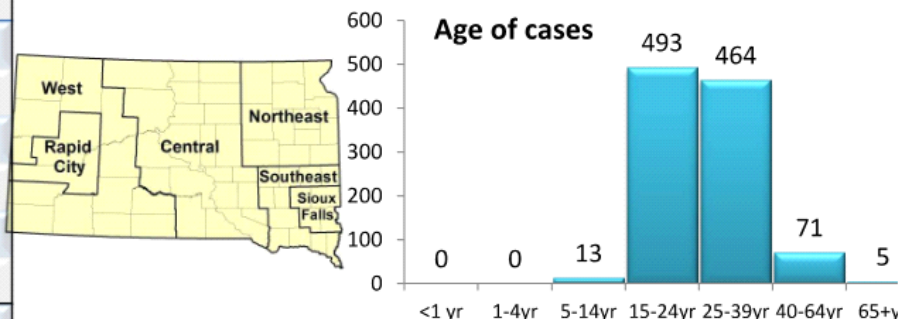


## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# Gonorrhea

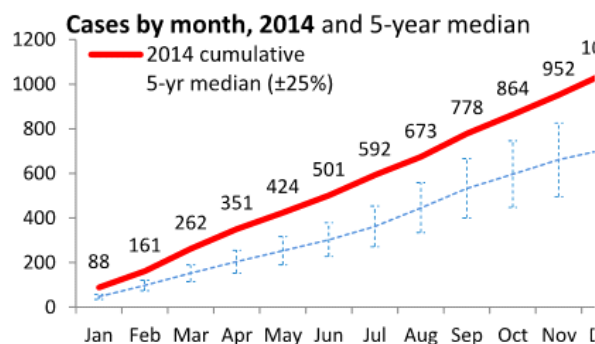
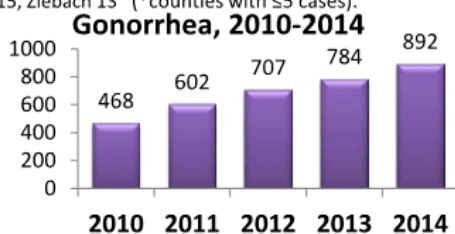
Symptoms vary depending on what part of the body is infected (anus, eyes, mouth, genitals, or throat). Gonorrhea can impact a one's ability to have children if left untreated.

| Regions             | Cases        | Rate**       |
|---------------------|--------------|--------------|
| Sioux Falls MSA     | 328          | 132.1        |
| Rapid City MSA      | 212          | 156.8        |
| Northeast           | 46           | 26.8         |
| Southeast           | 49           | 43.5         |
| Central             | 139          | 148.5        |
| West                | 266          | 288.8        |
| <b>South Dakota</b> | <b>1,047</b> | <b>122.6</b> |



\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Beadle\*, Bennett 12, Bon Homme\*, Brookings 6, Brown 13, Brule\*, Buffalo 6, Butte\*, Charles Mix 20, Clay 6, Codington 9, Corson 10, Custer\*, Davison 16, Day\*, Dewey 72, Douglas\*, Fall River 9, Grant\*, Haakon\*, Hamlin\*, Hughes 13, Hutchinson\*, Jackson 9, Kingsbury\*, Lake\*, Lawrence 7, Lincoln 28, Lyman 9, Marshall\*, McCook\*, Meade 12, Mellette 6, Miner\*, Minnehaha 295, Moody\*, Oglala Lakota 121, Pennington 200, Roberts 7, Spink\*, Stanley\*, Todd 80, Turner\*, Union\*, Walworth\*, Yankton 15, Ziebach 13 (\*counties with ≤5 cases).



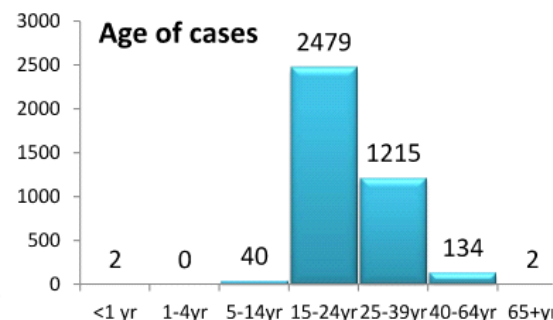


## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# Chlamydia

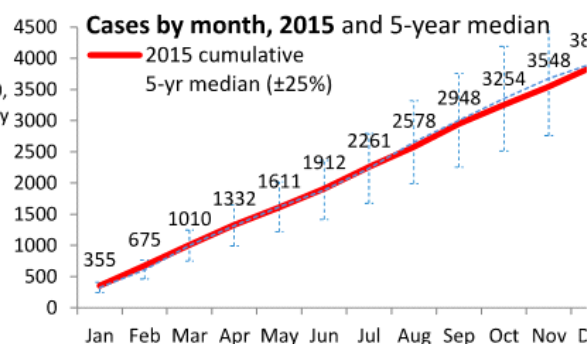
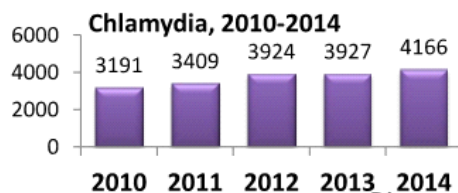
Most people who have chlamydia don't know it since the disease often has no symptoms.  
Chlamydia is the most commonly reported STD in the United States and South Dakota.

| Regions             | Cases        | Rate**     |
|---------------------|--------------|------------|
| Sioux Falls MSA     | 1089         | 438        |
| Rapid City MSA      | 629          | 465        |
| Northeast           | 547          | 319        |
| Southeast           | 287          | 255        |
| Central             | 455          | 486        |
| West                | 802          | 871        |
| <b>South Dakota</b> | <b>3,873</b> | <b>454</b> |



\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Aurora 7, Beadle 63, Bennett 32, Bon Homme 10, Brookings 94, Brown 134, Brule 9, Buffalo 25, Butte 34, Charles Mix 73, Clark 10, Clay 66, Codington 80, Corson 51, Custer 19, Davison 71, Day 6, Deuel 7, Dewey 136, Douglas\*, Edmunds\*, Fall River 19, Faulk\*, Grant 11, Gregory\*, Haakon\*, Hamlin 10, Hand\*, Hanson\*, Hughes 71, Hutchinson 6, Jackson 30, Jerauld\*, Jones\*, Kingsbury\*, Lake 20, Lawrence 107, Lincoln 80, 3500 Lyman 29, Marshall 10, McCook\*, Meade 76, Mellette 17, Miner\*, Minnehaha 993, Moody 18, Oglala Lakota 330, Pennington 553, Perkins\*, Potter\*, Roberts 91, Sanborn\*, Spink 26, Stanley 6, Todd 183, Tripp 8, Turner 12, Union 25, Walworth 20, Yankton 64, Ziebach 25 (\*counties with ≤5 cases).

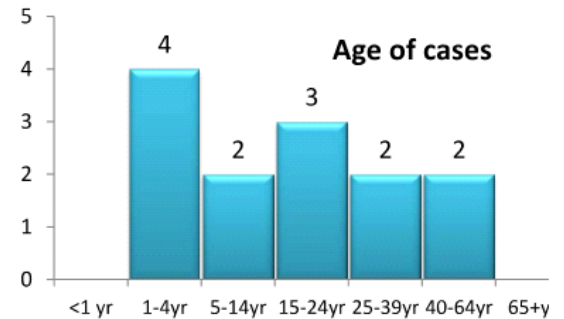


## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

### Pertussis (whooping cough)

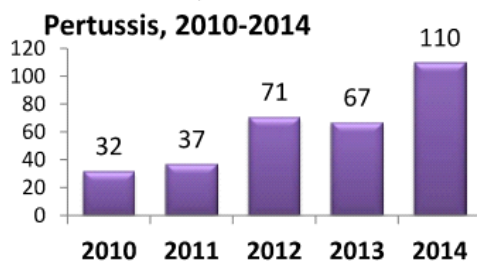
Pertussis is known for uncontrollable, violent coughing which often makes it hard to breathe.

| Regions             | Cases     | Rate**     |
|---------------------|-----------|------------|
| Sioux Falls MSA     | 3         | 1.2        |
| Rapid City MSA      | 1         | 0.7        |
| Northeast           | 2         | 1.2        |
| Southeast           | 1         | 0.9        |
| Central             | 4         | 4.3        |
| West                | 2         | 2.2        |
| <b>South Dakota</b> | <b>13</b> | <b>1.5</b> |

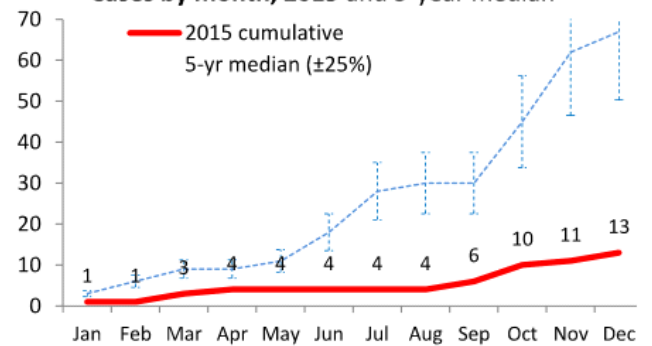


\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area.

**Counties with cases:** Codington\*, Custer\*, Davison\*, Douglas\*, Hughes\*, Lincoln\*, Meade\*, Minnehaha\*, Perkins\*, Potter\*  
(\*counties with ≤5 cases).



**Cases by month, 2015 and 5-year median**

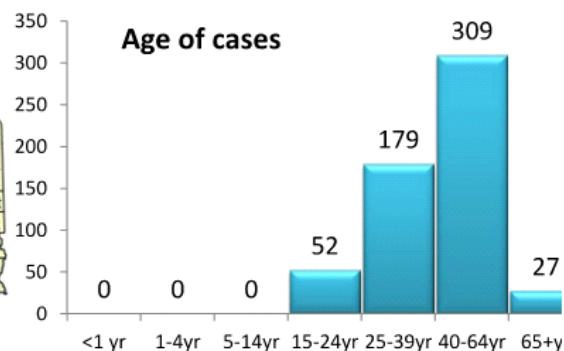


## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# Hepatitis C

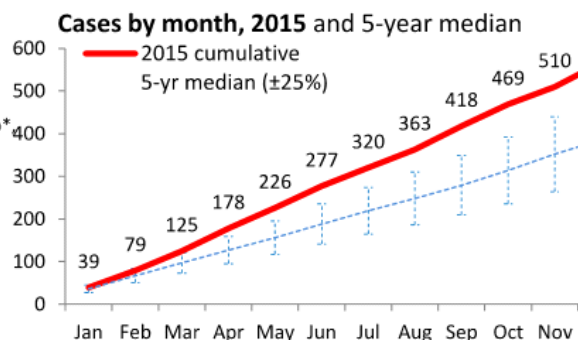
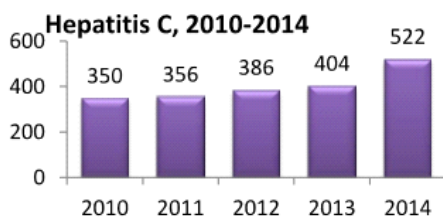
Hepatitis C virus infection is the most common chronic bloodborne infection in the United States and South Dakota.

| Regions             | Cases      | Rate**      |
|---------------------|------------|-------------|
| Sioux Falls MSA     | 160        | 64.4        |
| Rapid City MSA      | 107        | 79.1        |
| Northeast           | 69         | 40.3        |
| Southeast           | 64         | 56.9        |
| Central             | 110        | 117.5       |
| West                | 57         | 61.9        |
| <b>South Dakota</b> | <b>567</b> | <b>66.5</b> |



\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Aurora\*, Beadle 13, Bennett\*, Bon Homme 15, Brookings 8, Brown 12, Brule\*, Buffalo 8, Butte\*, Campbell\*, Charles Mix 12, Clark\*, Clay\*, Codington 9, Corson 40, Custer\*, Davison 8, Day\*, Deuel\*, Dewey 7, Douglas\*, Edmunds\*, Fall River\*, Faulk\*, Grant\*, Gregory\*, Haakon\*, Hamlin\*, Hand\*, Hanson\*, Harding\*, Hughes 16, Hutchinson\*, Jackson\*, Jerauld\*, Jones\*, Kingsbury\*, Lake\*, Lawrence 11, Lincoln 6, Lyman\*, Marshall\*, McCook\*, McPherson\*, Meade 15, Mellette\*, Miner\*, Minnehaha 151, Moody\*, Oglala Lakota 17, Pennington 92, Perkins\*, Potter\*, Roberts 14, Sanborn\*, Spink\*, Stanley\*, Sully\*, Todd 8, Tripp\*, Turner\*, Union\*, Walworth 8, Yankton 18, Ziebach\* (\*counties with ≤5 cases).



South Dakota Department of Health

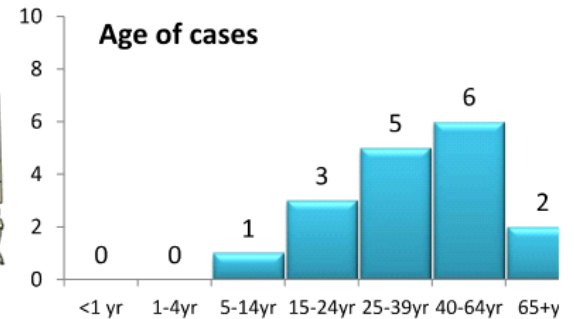
Disease fact sheets: <http://doh.sd.gov/diseases/infectious/diseasefacts>

## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

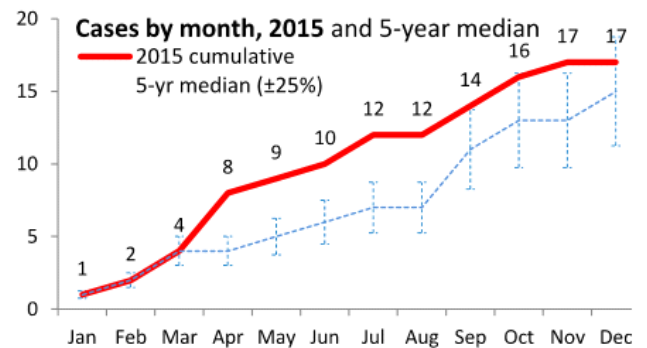
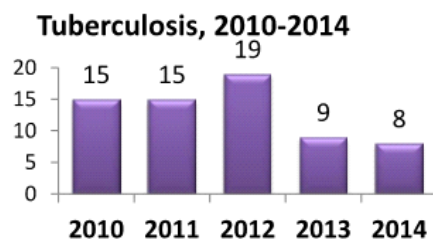
# Tuberculosis

Symptoms of TB disease include: bad cough 3 weeks or longer, pain in the chest, coughing up blood or sputum, weakness or fatigue, weight loss, chills, fever, sweating at night.

| Regions             | Cases     | Rate**     |
|---------------------|-----------|------------|
| Sioux Falls MSA     | 2         | 0.8        |
| Rapid City MSA      | 4         | 3.0        |
| Northeast           | 3         | 1.8        |
| Southeast           | 0         | 0.0        |
| Central             | 1         | 1.1        |
| West                | 7         | 7.6        |
| <b>South Dakota</b> | <b>17</b> | <b>2.0</b> |



\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area  
**Counties with cases:** Beadle\*, Brown\*, Buffalo\*, Meade\*, Minnehaha\*, Pennington\*, Roberts\*, Todd\*, Ziebach 6 (\*counties with ≤5 cases).



## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

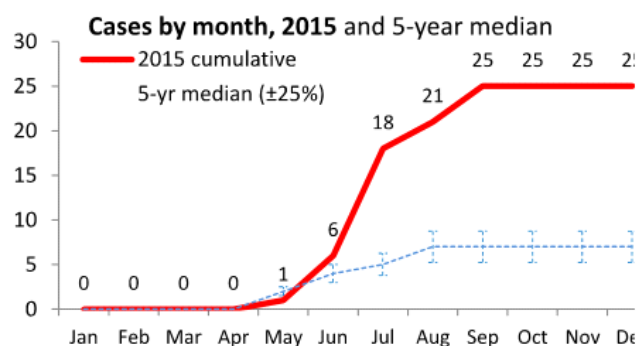
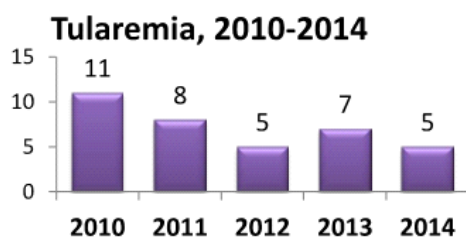
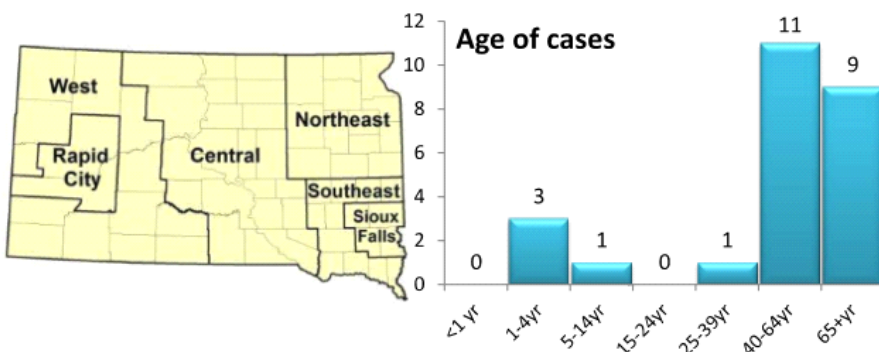
### Tularemia

Tularemia is a disease of animals and humans caused by the bacterium *Francisella tularensis*. Rabbits, and rodents are especially susceptible and often die in large numbers during outbreaks.

| Regions             | Cases     | Rate**     |
|---------------------|-----------|------------|
| Sioux Falls MSA     | 0         | 0.0        |
| Rapid City MSA      | 13        | 9.6        |
| Northeast           | 0         | 0.0        |
| Southeast           | 0         | 0.0        |
| Central             | 1         | 1.1        |
| West                | 11        | 11.9       |
| <b>South Dakota</b> | <b>25</b> | <b>2.9</b> |

\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Butte\*, Charles Mix\*, Fall River\*, Lawrence\*, Meade\*, Oglala/Lakota\*, Pennington 8, Perkins\*, Ziebach\* (\*counties with ≤5 cases).



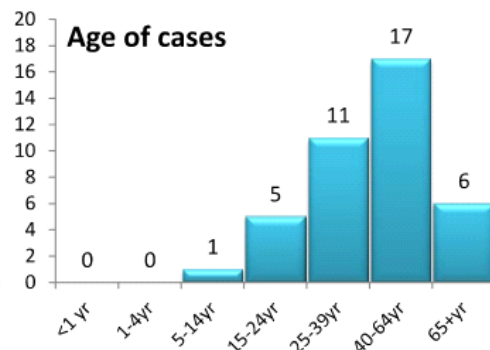


## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

### West Nile Virus

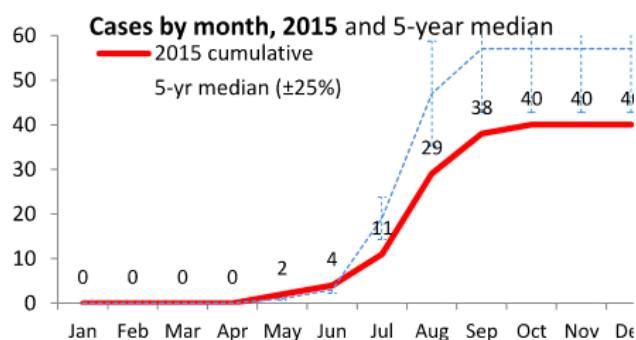
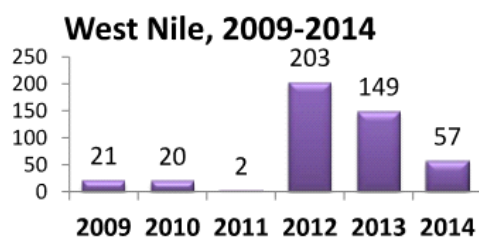
About 20% of infected people develop fever with other symptoms such as headache, body aches, joint pains, vomiting, diarrhea, or rash, but <1% develop encephalitis or meningitis, symptoms can include headache, high fever, neck stiffness, disorientation, coma, tremors, seizures, or paralysis.

| Regions             | Cases     | Rate**     |
|---------------------|-----------|------------|
| Sioux Falls MSA     | 1         | 0.4        |
| Rapid City MSA      | 4         | 3.0        |
| Northeast           | 16        | 9.3        |
| Southeast           | 3         | 2.7        |
| Central             | 9         | 9.6        |
| West                | 7         | 7.6        |
| <b>South Dakota</b> | <b>40</b> | <b>4.7</b> |



\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Beadle, Bennett 2, Brown 7, Brule, Butte, Codington 2, Corson, Davison, Dewey 2, Edmunds, Haakon 2, Hamlin, Hanson, Hughes, Jackson, Kingsbury 2, Lake, Pennington 4, Perkins, Potter, Spink 3, Tripp, Walworth.

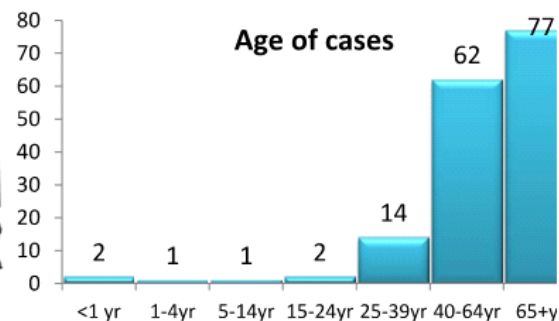


## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# MRSA

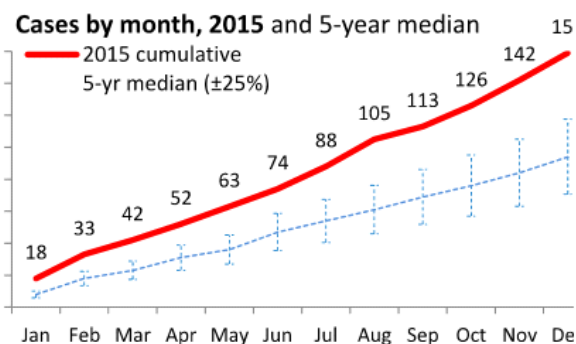
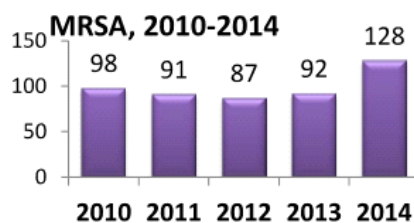
Invasive methicillin-resistant *Staphylococcus aureus*

| Regions             | Cases      | Rate**      |
|---------------------|------------|-------------|
| Sioux Falls MSA     | 37         | 14.9        |
| Rapid City MSA      | 29         | 21.5        |
| Northeast           | 15         | 8.8         |
| Southeast           | 13         | 11.5        |
| Central             | 31         | 33.1        |
| West                | 34         | 36.9        |
| <b>South Dakota</b> | <b>159</b> | <b>18.6</b> |



\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Aurora\*, Beadle\*, Bennett\*, BonHomme\*, Brookings\*, Brown 6, Brule\*, CharlesMix\*, Clark\*, Codington\*, Corson\*, Davison\*, Day\*, Dewey 8, Douglas\*, FallRiver\*, Gregory\*, Hand\*, Hughes\*, Hutchinson\*, Jackson\*, Lake\*, Lawrence\*, Lincoln 6, Lyman\*, McCook\*, McPherson\*, Meade 7, Mellette\*, Miner\*, Minnehaha 27, Moody\*, OglalaLakota 11, Pennington 22, Potter\*, Roberts\*, Stanley\*, Sully\*, Todd\*, Turner\*, Yankton\*, Ziebach\* (\*counties with ≤5 cases).



South Dakota Department of Health

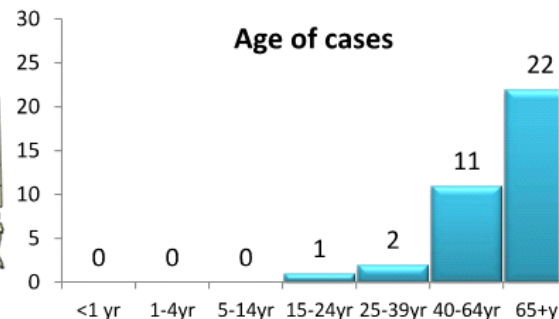
Disease fact sheets: <http://doh.sd.gov/diseases/infectious/diseasefacts>

## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# CRE

Carbapenem-resistant Enterobacteriaceae: family of bacteria difficult to treat because of high levels of resistance to antibiotics.

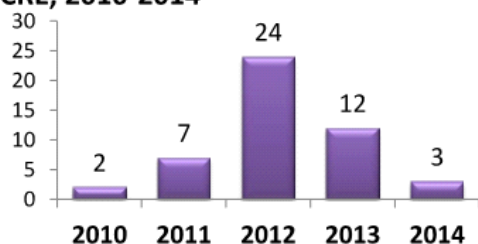
| Regions             | Cases     | Rate**     |
|---------------------|-----------|------------|
| Sioux Falls MSA     | 5         | 2.0        |
| Rapid City MSA      | 1         | 0.7        |
| Northeast           | 14        | 8.2        |
| Southeast           | 6         | 5.3        |
| Central             | 7         | 7.5        |
| West                | 3         | 3.3        |
| <b>South Dakota</b> | <b>36</b> | <b>4.2</b> |



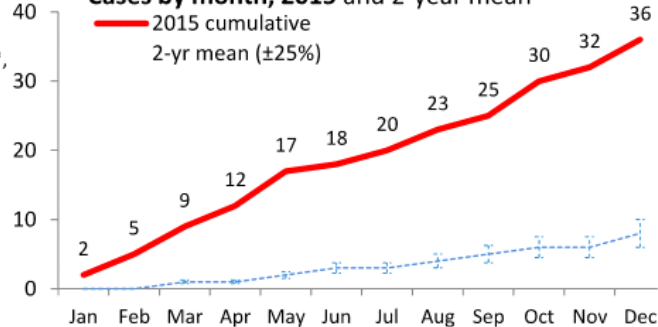
\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Beadle\*, Brookings\*, Brown 11, Clay\*, Codington\*, Corson\*, Davison 5, Edmunds\*, Faulk\*, Lincoln\*, Minnehaha\*, Oglala Lakota\*, Pennington\*, Tripp\*, Ziebach\* (\*counties with <5 cases).

### CRE, 2010-2014



### Cases by month, 2015 and 2-year mean

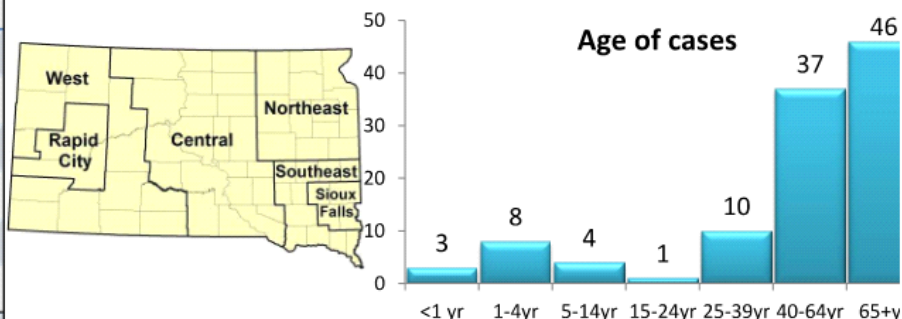


## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

### *Streptococcus pneumoniae* (invasive)

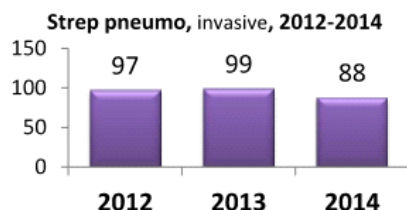
Death occurs in 14% of hospitalized adults with invasive disease. Neurologic sequelae and learning disabilities can occur in meningitis patients.

| Regions             | Cases      | Rate**      |
|---------------------|------------|-------------|
| Sioux Falls MSA     | 24         | 9.7         |
| Rapid City MSA      | 21         | 15.5        |
| Northeast           | 17         | 9.9         |
| Southeast           | 13         | 11.5        |
| Central             | 20         | 21.4        |
| West                | 14         | 15.2        |
| <b>South Dakota</b> | <b>109</b> | <b>12.8</b> |

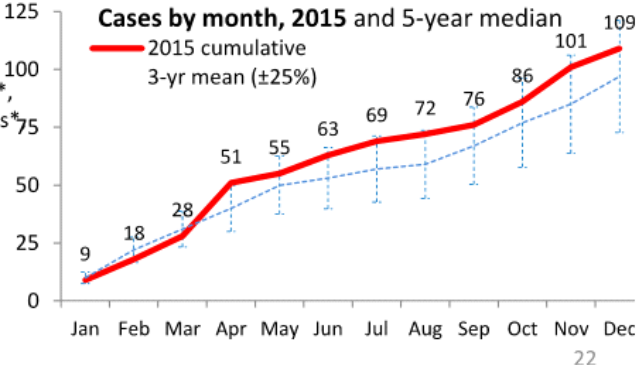


\*\*Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

**Counties with cases:** Aurora\*, Brown 6, Brule\*, Buffalo\*, Butte\*, Charles 125 Mix\*, Clark\*, Clay\*, Corson\*, Custer\*, Davison 7, Day\*, Dewey\*, Edmunds\*, FallRiver\*, Gregory\*, Hanson\*, Hughes 6, Hutchinson\*, Lawrence\*, Lincoln\*, Lyman\*, Marshall\*, McCook\*, McPherson\*, Meade\*, Mellette\*, Minnehaha 21, Moody\*, OglalaLakota\*, Pennington 18, Perkins\*75 Roberts\*, Spink\*, Tripp\* (\*counties with ≤5 cases).



South Dakota Department of Health



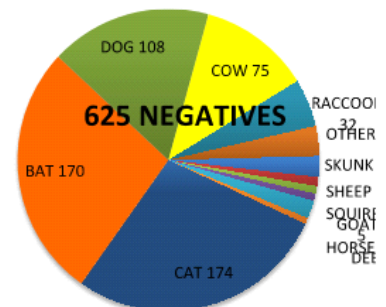
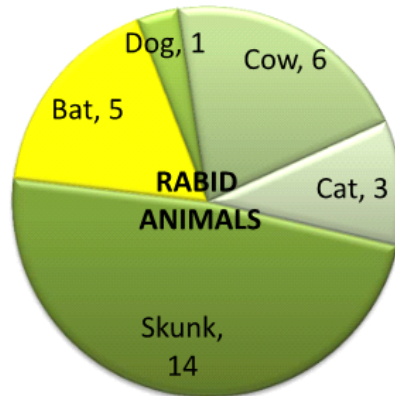
## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

# Rabies

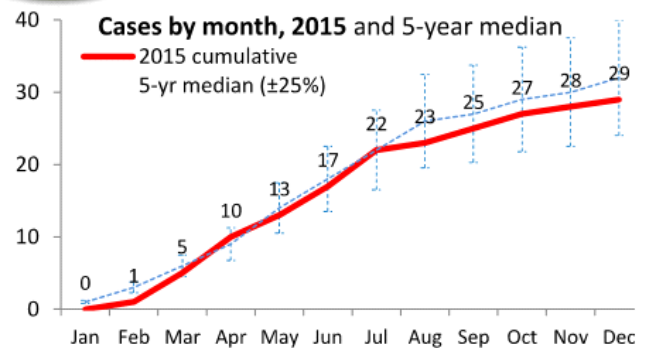
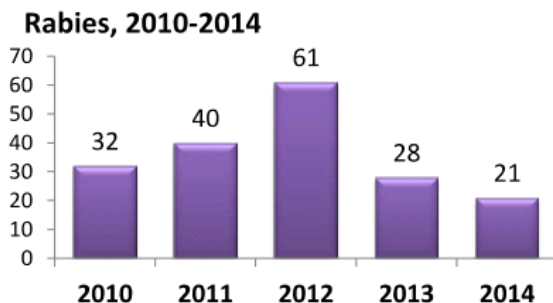
Rabies is a fatal, but preventable, viral disease of mammals most often transmitted through the bite of a rabid animal.

### County: rabid animals 29

|   |                       |
|---|-----------------------|
| Brookings: cat 1, skunk 1               | Clark: cow 1, skunk 1 |
| Codington: skunk 1                      | Corson: dog 1         |
| Day: skunk 1                            | Dewey: cow 1          |
| Faulk: skunk 1                          | Haakon: skunk 1       |
| Hand: skunk 1                           | Hutchinson: bat 1     |
| Lake: cat 1                             | Marshall: skunk 2     |
| Minnehaha: bat 3                        | Perkins: cat 1        |
| Roberts: cow 3, skunk 1                 | Turner: bat 1         |
| Walworth: skunk 2                       | Yankton: cow 1        |
| Tripp: spotted skunk 1, striped skunk 1 |                       |



\*badger, coyote, fox, gopher, moose, opossum, otter, prairie dog, rabbit, rat, woodchuck



Disease fact sheets: <https://doh.sd.gov/diseases/infectious/diseasefacts/rabies.aspx> 23



## **Healthcare Associated Infections, South Dakota**

- 15 of 17 SD facilities participating in the National Healthcare Safety Network (NHSN) report to the Dept of Health.
- 4 target areas:
  - *Clostridium difficile* infections;
  - Bloodstream MRSA (methicillin-resistant *Staphylococcus aureus*);
  - Central line associated bloodstream infections (CLABSI).
  - Surgical site infection (SSI)
- Reports 1 January – 31 December 2015:
  - *C. difficile*: 1,032 cases reported (312 hospital onset).
  - MRSA (bloodstream): 136 (18 hospital onset).
  - CLABSI: 33 cases reported.
  - SSI: 73 cases (56 colon, 17 hysterectomy).

Please see [www.cdc.gov/nhsn](http://www.cdc.gov/nhsn)

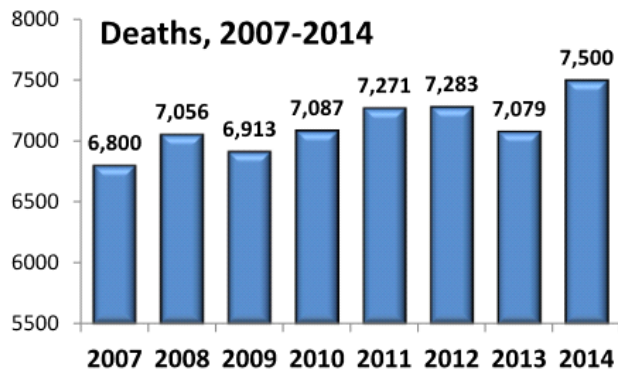
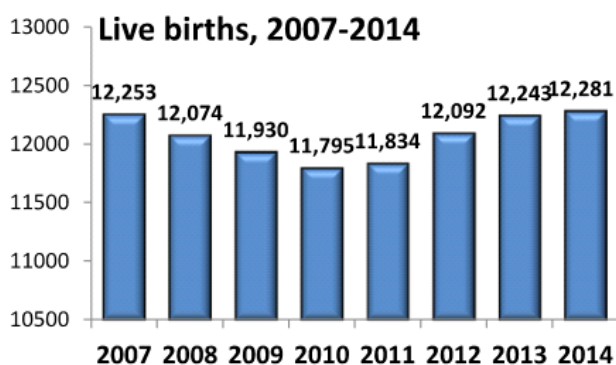
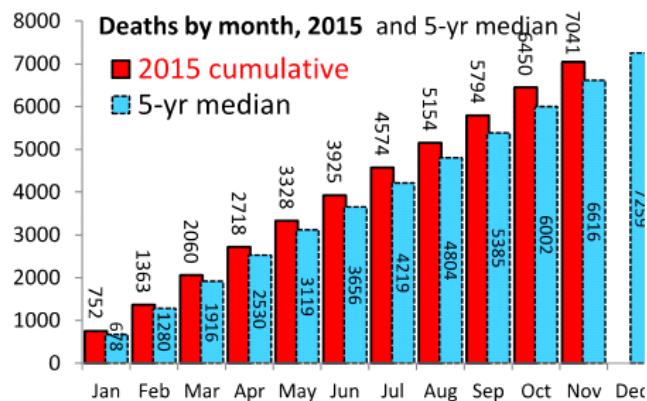
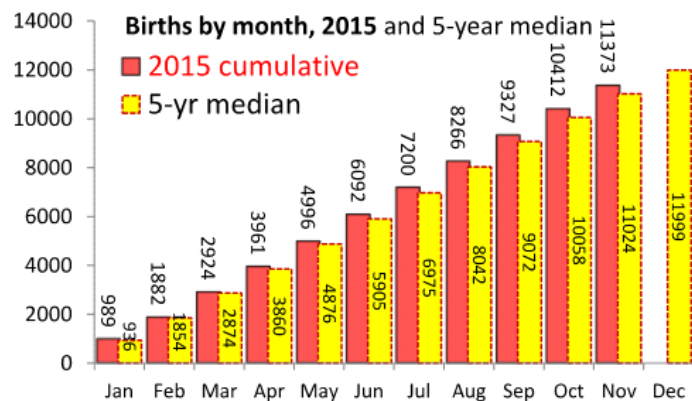
**SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data**

## Other diseases, South Dakota, year-to-date 2015

| Disease                  | Total cases YTD | 5-yr median (2010-2014) | Regions         |                |           |           |         |      |
|--------------------------|-----------------|-------------------------|-----------------|----------------|-----------|-----------|---------|------|
|                          |                 |                         | Sioux Falls MSA | Rapid City MSA | Northeast | Southeast | Central | West |
| Chicken pox              | 28              | 42                      | 15              | 1              | 6         | 1         | 1       | 4    |
| Dengue fever             | 2               | 0                       | 1               | 0              | 0         | 1         | 0       | 0    |
| Haemophilus influenzae b | 1               | 0                       | 0               | 1              | 0         | 0         | 0       | 0    |
| Hepatitis A              | 2               | 2                       | 0               | 1              | 1         | 0         | 0       | 0    |
| Hepatitis B, acute       | 2               | 2                       | 1               | 0              | 1         | 0         | 0       | 0    |
| Hepatitis B, chronic     | 50              | 47                      | 24              | 4              | 20        | 2         | 0       | 0    |
| Legionnaires' disease    | 10              | 7                       | 2               | 5              | 0         | 2         | 0       | 1    |
| Lyme disease             | 5               | 4                       | 1               | 0              | 3         | 0         | 1       | 0    |
| Malaria                  | 3               | 5                       | 3               | 0              | 0         | 0         | 0       | 0    |
| Measles                  | 2               | 0                       | 1               | 0              | 0         | 1         | 0       | 0    |
| Meningococcal, invasive  | 1               | 2                       | 0               | 0              | 0         | 1         | 0       | 0    |
| Q Fever                  | 5               | 3                       | 1               | 1              | 1         | 2         | 0       | 0    |
| Rocky Mt Spotted Fever   | 3               | 1                       | 1               | 1              | 0         | 0         | 0       | 1    |
| Tetanus                  | 1               | 0                       | 0               | 0              | 0         | 0         | 0       | 1    |
| Typhoid                  | 1               | 2                       | 1               | 0              | 0         | 0         | 0       | 0    |

## SOUTH DAKOTA: 1 January – 31 December 2015: Provisional Data

### Births and deaths, South Dakota, 2015



\*2012 numbers provisional

Vital Records: <http://doh.sd.gov/VitalRecords>

## South Dakota, diseases past 10 years, 2005 – 2014

| Reportable Diseases                    | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013  | 2014         |
|--|------|------|------|------|------|------|------|------|-------|--------------|
| <b>Campylobacteriosis</b>              | 244  | 219  | 235  | 262  | 298  | 296  | 301  | 276  | 295   | <b>308</b>   |
| <b>Chlamydia</b>                       | 2701 | 2633 | 2612 | 2919 | 3016 | 3191 | 3409 | 3924 | 3,927 | <b>4,166</b> |
| <b>Cryptosporidiosis</b>               | 31   | 86   | 169  | 88   | 138  | 108  | 146  | 113  | 174   | <b>153</b>   |
| <i>E. coli</i> , shiga toxin-producing | 29   | 50   | 47   | 53   | 71   | 35   | 41   | 47   | 43    | <b>41</b>    |
| <b>Giardiasis</b>                      | 118  | 97   | 104  | 136  | 112  | 102  | 110  | 144  | 111   | <b>132</b>   |
| <b>Gonorrhea</b>                       | 351  | 367  | 254  | 382  | 345  | 468  | 602  | 707  | 784   | <b>892</b>   |
| <b>Hantavirus pulmno syndrome</b>      | 2    | 2    | 1    | 0    | 0    | 0    | 1    | 1    | 0     | <b>0</b>     |
| <b>Hepatitis A</b>                     | 1    | 9    | 7    | 3    | 3    | 1    | 2    | 0    | 4     | <b>3</b>     |
| <b>Hepatitis C</b>                     | 207  | 355  | 317  | 365  | 381  | 349  | 356  | 390  | 405   | <b>522</b>   |
| <b>HIV, including Stage III (AIDS)</b> | 33   | 34   | 25   | 34   | 21   | 35   | 21   | 29   | 36    | <b>31</b>    |
| <b>Legionellosis</b>                   | 21   | 5    | 4    | 3    | 2    | 9    | 2    | 9    | 7     | <b>10</b>    |
| <b>Measles</b>                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | <b>8</b>     |
| <b>Meningococcal disease</b>           | 4    | 4    | 3    | 3    | 5    | 0    | 3    | 0    | 4     | <b>2</b>     |
| <b>MRSA, invasive</b>                  | 47   | 50   | 87   | 76   | 91   | 98   | 91   | 87   | 92    | <b>128</b>   |
| <b>Mumps</b>                           | 0    | 296  | 6    | 1    | 2    | 2    | 0    | 0    | 0     | <b>0</b>     |
| <b>Pertussis</b>                       | 183  | 26   | 61   | 68   | 58   | 32   | 37   | 70   | 67    | <b>110</b>   |
| <b>Q Fever</b>                         | 2    | 2    | 1    | 1    | 9    | 4    | 1    | 2    | 4     | <b>5</b>     |
| <b>Rabies, animal</b>                  | 68   | 38   | 27   | 24   | 53   | 32   | 40   | 60   | 28    | <b>21</b>    |
| <b>Salmonellosis</b>                   | 160  | 135  | 172  | 152  | 198  | 186  | 162  | 170  | 182   | <b>170</b>   |
| <b>Shigellosis</b>                     | 131  | 389  | 122  | 76   | 4    | 7    | 6    | 11   | 190   | <b>621</b>   |
| <b>Syphilis, early</b>                 | 0    | 19   | 11   | 4    | 2    | 4    | 0    | 21   | 49    | <b>76</b>    |
| <b>Tuberculosis</b>                    | 16   | 14   | 13   | 16   | 18   | 15   | 15   | 19   | 9     | <b>8</b>     |
| <b>Tularemia</b>                       | 8    | 5    | 7    | 10   | 5    | 11   | 8    | 5    | 7     | <b>5</b>     |
| <b>West Nile neuroinvasive</b>         | 35   | 38   | 48   | 11   | 6    | 4    | 0    | 62   | 57    | <b>12</b>    |

# *South Dakota Department of Health*



[doh.sd.gov/strategicplan](http://doh.sd.gov/strategicplan)

## *Vision*

**Healthy** People  
**Healthy** Communities  
**Healthy** South Dakota

## *Mission*

To promote, protect and improve the health of every South Dakotan

## *Guiding Principles*

**Serve** with integrity  
**Eliminate** health disparities  
**Demonstrate** leadership and accountability  
**Focus** on prevention and outcomes  
**Leverage** partnerships  
**Promote** innovation



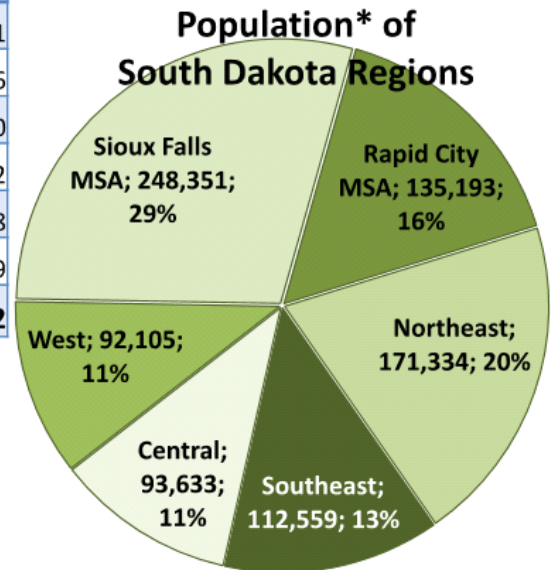
# South Dakota Regions

| Region              | Population     | %           | Area (sq miles) | Density (people per sq mile) |
|---------------------|----------------|-------------|-----------------|------------------------------|
| Sioux Falls MSA*    | 248,351        | 29.1%       | 3,141           | 79.1                         |
| Rapid City MSA*     | 135,193        | 15.8%       | 6,247           | 21.6                         |
| Northeast           | 171,334        | 20.1%       | 12,277          | 14.0                         |
| Southeast           | 112,559        | 13.2%       | 5,863           | 19.2                         |
| Central             | 93,633         | 11.0%       | 24,860          | 3.8                          |
| West                | 92,105         | 10.8%       | 23,508          | 3.9                          |
| <b>South Dakota</b> | <b>853,175</b> | <b>100%</b> | <b>75,896</b>   | <b>11.2</b>                  |

\*Metropolitan Statistical Area



South Dakota Department of Health



\*US Census Bureau, 2014 population estimates

## Reportable Diseases List

<http://doh.sd.gov/diseases/infectious/reporting-communicable-diseases.aspx>

## Monthly surveillance reports

<http://doh.sd.gov/statistics/disease-surveillance>

### How to report infectious diseases

1. Secure disease reporting website: <https://sd.gov/diseasereport>
2. Telephone: **1-800-592-1804** confidential recorder; or **1-800-592-1861** or **605-773-3737** for a disease surveillance person during normal business hours; after hours to report Category I diseases or other emergencies, call **605-280-4810**.
3. Fax: **605-773-5509**
4. Mail or courier, address to: Infectious Disease Surveillance, Office of Disease Prevention, Department of Health, 615 East 4th Street, Pierre, SD 57501; marked *"Confidential Disease Report"*

### Department of Health publications

- Infectious disease report: <http://doh.sd.gov/statistics/disease-surveillance/>
- Public Health Bulletin: <http://doh.sd.gov/resources/bulletin.aspx>
- Adult Risk Behaviors: <http://doh.sd.gov/statistics/2010BRFSS/>
- Youth Risk Behaviors (Dept of Education): <http://doh.sd.gov/statistics/YRBS.aspx>